

Guide to Working in the UAV Industry

"The UAV industry is poised to develop 100,000 new jobs by 2025"

-UAU Industry Trade Group

uavjobbank.com

Intro

The UAV (unmanned aerial vehicle) industry and UAS (unmanned aircraft system) community are advancing and growing quickly. UAS are used in a variety of dangerous or difficult situations, such as floods and wildfires, as well as hurricanes, tornadoes, and volcanoes. Non-military UAS are most likely used by public safety agencies and are small with limited flight duration. Thousands of jobs in the UAV industry are expected within the next several years.

Summary: AUVSI Econ Report

The Association for Unmanned Vehicle Systems International (AUVSI) is the world's largest non-profit organization, with more than 7,500 members, and is exclusively dedicated to advancing the unmanned systems and robotics community. A UAS is not strictly the aircraft, but also the technology on the ground and the human at control. "There is nothing unmanned about an unmanned system," says AUVSI's CEO & President, Michael Toscano.

http://www.auvsi.org/AUVSI/AUVSINews/AssociationNews/#EconReport

In February of 2013, the Federal Aviation Administration (FAA) requested proposals to develop and test UAS at six sites around the country, as part of the process to integrate UAS into the national airspace system (NAS) by 2015.

https://faaco.faa.gov/index.cfm/announcement/view/13143

In March of 2013, AUVSI unveiled a study which finds:

- In the first three years following integration into the NAS, more than 70,000 new jobs will be created, and the total economic impact stemming from the integration is projected to surpass \$13.6 billion and will grow sustainably for the foreseeable future, cumulating in more than \$82.1 billion in impact between 2015 and 2025.
- The study projects integration will lead to 103,776 new jobs nationally by 2025.
- Additional economic benefit will be seen through tax revenue to the states, which will total more than \$482 million in the first decade following the integration.
- Every year that integration is delayed, the United States loses more than \$10 billion in potential economic impact. This translates to a loss of \$27.6 million per day that UAS are not integrated into the NAS.
- The precision agriculture industry is expected to be the largest market for UAS technology, followed by the public safety sector.

http://www.auvsi.org/econreport

UAV Industry Professional Associations:

Association for Unmanned Vehicle Systems International (AUVSI) http://www.auvsi.org/Home/

American Institute of Aeronautics and Astronautics (AIAA) https://www.aiaa.org/default.aspx

United Aerial Vehicle Systems Association (UAVS Association) http://www.uavs.org/aboutuavs

UAV MarketSpace Inc.

http://www.uavm.com/uavmarketspace.html

International Civil Aviation Organization (ICAO) http://www.icao.int/Pages/default.aspx

European Aviation Safety Agency (EASA) http://easa.europa.eu/home.php

Professional Associating of RC Aircraft Pilots (PARCAP) http://www.parcap.org

Salary Trends:

Average Salary of Jobs with Titles Matching Your Search



Average UAV salaries for job postings nationwide are 24% higher than average salaries for all job postings nationwide.



Average Salary of Jobs with Titles Matching Your Search



Average drones salaries for job postings nationwide are 39% higher than average salaries for all job postings nationwide.



Twitter Users:

https://twitter.com/UrbanDrones

FPV and UAV Drone Systems Developer for the Unmanned Aerial Vehicle

Average Salary of Jobs with Titles Matching Your Search



Average UAS salaries for job postings nationwide are 5% higher than average salaries for all job postings nationwide.



Average Salary of Jobs with Related Titles



enthusiastic, tinker and makers.

https://twitter.com/DIYDrones

The world's largest amateur UAV community

https://twitter.com/DRONESREPORT

The DRONES REPORT is a U.S. based news service following news related to Unmanned Aerial Vehicles #UAV #Drones #UAS.

https://twitter.com/SkyFutures

Sky-Futures is a global unmanned systems solutions business offering a market leading managed service using cutting edge Unmanned Aerial Vehicles (UAV).

https://twitter.com/sUASnews

Unmanned Aviation, fixed wing and rotary UAV stories from around the world.

https://twitter.com/fg_uavs

Latest UAV news from Flightglobal

https://twitter.com/DroneStories

DRONE CULTURE, pilotless planes, UAVs. Categories: warfare (#DRONEWAR), surveillance (#DRONESURV), blogs (#DRONEBLOG), BBC (#DRONEBBC). Contact @bowbrick.

https://twitter.com/PieterBastiaans

defence correspondent & photographer

https://twitter.com/chr1sa

3D Robotics CEO, DIY Drones, ex Wired EIC, Long Tail, FREE, Makers, GeekDad, etc. And five great kids who put up with it all.

https://twitter.com/UAVpilot

UAV network committed to the support of the UAV community, providing relevant information, job referrals, and technical information in a rapidly growing field.

https://twitter.com/AUVSI

Connecting the Global Unmanned Systems Community

https://twitter.com/NavalDrones

Exclusive analysis and original content on unmanned naval systems and occasionally other national security topics. Opinions my own.

UAV Industry News Sources:

http://www.unmanned.co.uk/platforms/unmanned-vehicles-news/unmanned-aerial-vehicles-uav-news/

http://www.spacewar.com/uav.html

http://www.aviationschoolsonline.com/resource-center/news-uas-uav.php

http://www.suasnews.com/

http://www.flightglobal.com/news/aircraft/uavs/

http://www.draganfly.com/news/category/uav-news/

http://dronesreport.com/

http://www.flightglobal.com/news/aircraft/uavs/

http://theaviationist.com/

http://www.unmanned.co.uk/

UAV Staffing Firms:

PlaneTechs

http://www.planetechs.com/UAV-Jobs

PlaneTechs, the leading aviation staffing provider, has UAV jobs available! PlaneTechs specializes in connecting qualified applicants searching for unmanned aerial vehicles or UAV jobs with some of the most sought-after aviation employers in the business – not only in the United States, but around the world.

Unmannedpower

http://unmannedpower.com/

Unmannedpower is a professional recruiting and consulting firm working exclusively with clients, job seekers, and consultants in the unmanned industry. Please contact me if you'd like to find a qualified employee with unmanned experience, connect with an industry consultant, or discuss your job search. whitney@unmannedpower.com orwww.unmannedpower.com.

MAC Executive Recruiters

http://uavrecruiter.com/

The basic proposition of our business is to recruit the highest caliber UAV candidate to our clients and to ensure that our candidate reaches their

maximum potential. We utilize a Six Sigma process that includes measuring our specific client centric metrics, quality and diversity, cycle time of candidates.

UAV Job Bank

http://uavjobbank.com/

UAV Job Bank searches the web to bring you the most UAV job listings.

ACADEMI

http://academi.com/

ACADEMI is an innovative, privately-held training and security solutions provider serving government and commercial industries worldwide. Founded in 1997, ACADEMI was initially envisioned as a training facility to support the needs of local and regional law enforcement personnel. Today we are capable of providing risk assessment, training and security solutions in multiple locations across the globe, reacting to need with near-immediate deployment.

Association for Unmanned Vehicle Systems International (AUVSI) www.auvsi.org/Home/

The Association for Unmanned Vehicle Systems International is the world's largest non-profit organization devoted exclusively to advancing the unmanned systems and robotics community. Serving more than 7,500 members from government organizations, industry and academia, AUVSI is committed to fostering, developing, and promoting unmanned systems and robotic technologies.

U.S. Army

http://www.goarmy.com

http://www.goarmy.com/careers-and-jobs/browse-career-and-job-categories/transportation-and-aviation/unmanned-aerial-vehicle-operator.html

The U.S. Army, a key component of the U.S. Armed Forces, is made up of the best-trained, most dedicated, most respected Soldiers in the world — protecting America's freedoms at home and abroad, securing our homeland, and defending democracy worldwide.

Space Alliance Technology Outreach Program (SATOP) www.spacetechsolutions.com/about.asp

The Space Alliance Technology Outreach Program (SATOP) is a cooperative program between the states of Florida, New Mexico, New York, and Texas. SATOP is a FREE service designed to provide technical assistance and speed the transfer of space technology to the private sector. By giving FREE technology

assistance to small businesses, SATOP helps them solve their challenges and increase their chances of succeeding.

National Guard

http://www.nationalguard.com/?cid=mosjobboard_txt-nationalgu10092 web 20130101

The National Guard serves both state and federal governments. While the Guard originally focused on protecting local communities, it eventually grew into a force that complements the Active Duty Army when help is needed anywhere in the world. The biggest difference compared to other branches is that while Guard units are combat-trained and can be deployed overseas, they are just as likely to serve in their home communities.

UTC Aerospace Systems

http://utcaerospacesystems.com

UTC Aerospace Systems is one of the world's largest suppliers of technologically advanced aerospace and defense products. We design, manufacture and service systems and components and provide integrated solutions for commercial, regional, business and military aircraft, helicopters and other platforms. We are also a major supplier to international space programs.

L-3 Unmanned Systems

www.l-3com.com

For more than a decade, L-3 has delivered superior performance to the U.S. government, our allies and leading corporations throughout the world. As a top ten defense contractor in the world, we know the critical role our products and services play in the protection and defense of freedoms worldwide. We take our responsibility very seriously, and we are privileged to support our customers and the men and women who get the job done.

General Dynamics Information Technology www.gdit.com

As a trusted systems integrator for more than 50 years, General Dynamics Information Technology provides information technology (IT), systems engineering, professional services and simulation and training to customers in the defense, federal civilian government, health, homeland security, intelligence, state and local government and commercial sectors.

Lockheed Martin

www.lockheedmartin.com/us/products/procerus.html

Lockheed Martin Procerus Technologies is a leader in developing and producing world-class avionics and payload technologies used in numerous small unmanned aircraft systems (UAS). Products include advanced Kestral Autopilot flight systems, OnPoint Vision Systems for target tracking, stabilization, geo-location and terminal guidance applications, Preceptor Imaging systems and other avionics for small UASs.

System Studies & Simulations

https://www.s3inc.com

An industry Leader in providing quality services to military systems 20 plus years of experience in Systems Engineering and Technical Assistance (SETA)

Critical support to national security providing training, operational support, and logistic services

Proven performer in leading strategic planning and program development Cost effective professional services to government and private sector customers

General Atomics Aeronautical

www.ga-asi.com

General Atomics Aeronautical Systems, Inc. (GA-ASI), an affiliate of privatelyheld General Atomics, is a leading manufacturer of Unmanned Aircraft Systems (UAS), tactical reconnaissance radars, and surveillance systems. The company's Aircraft Systems Group is a leading designer and manufacturer of proven, reliable UAS. It also manufactures a variety of solid-state digital Ground Control Stations (GCS) and provides pilot training and support services for UAS field operations. The Reconnaissance Systems Group designs, manufactures, and integrates the Lynx® Multi-mode Radar and the highly sophisticated Claw® sensor payload control and image analysis software on to both manned and unmanned surveillance aircraft. It also integrates other sensor and communication equipment into manned Intelligence, Surveillance, Reconnaissance (ISR) aircraft and develops emerging technologies in solidstate lasers, electo-optical sensors, and ultra-wideband data links for government applications. GA-ASI has over 6,000 employees at multiple facilities in the San Diego area and in the Mojave Desert, just east of Los Angeles.

American Unmanned Systems www.americanunmannedsystems.com

American Unmanned Systems (AUS) is a new enterpreneurial American company that offers unique unmanned systems and platforms for unique applications and missions. AUS, with its unique and innovative engineering resources, has taken development vehicles to production readiness in America to bring the user/customer affordable unmanned systems for strategic missions to tactical use where safety is first consideration.

ITT Exelis

http://exelisinc.jobs/

ITT is a diversified leading manufacturer of highly engineered critical components and customized technology solutions for the energy, transportation and industrial markets. Building on its heritage of innovation, ITT partners with its customers to deliver enduring solutions to the key industries that underpin our modern way of life. Founded in 1920, ITT is headquartered in White Plains, N.Y., with employees in more than 35 countries and sales in a total of approximately 125 countries. The company generated 2011 revenues of \$2.1 billion.

General Atomics and Affiliated Companies

www.ga.com

Founded originally in 1955 as a division of General Dynamics, General Atomics ("GA") and its affiliated companies now constitute one of the world's leading resources for high-technology systems ranging from the nuclear fuel cycle to electromagnetic systems, remotely operated surveillance aircraft, airborne sensors, and advanced electronic, wireless and laser technologies.

Alliance Solutions

www.sballiance.net

For over 10 years, Alliance Solutions has been down in the trenches working one-on-one with companies throughout the Southeast and Mid-Atlantic regions to identify the unique skill-sets needed to match the individual job specifications of your company; and to pinpoint highly specialized candidates who provide a solution that drives your success.

Northrop Grumman

www.northropgrumman.com/Pages/default.aspx

Northrop Grumman is a leading global security company providing innovative systems, products and solutions in unmanned systems, cybersecurity, C4ISR, and logistics and modernization to government and commercial customers worldwide.

Brandes Associates Inc.

www.brandes-assoc.com

Since 1990, Brandes Associates Inc., a small business, has provided high quality engineering and program support to our customers in the Department of Defense. We move with the speed and flexibility of a small company, yet deliver the quality and technical expertise typically found in the largest corporations-providing creative, innovative solutions to customer needs at highly competitive rates.

Bosh Global Services

www.boshqs.com/index.php

BOSH specializes in unmanned systems-related operations and technology services. The company, formerly known as UAV Communications, Inc. was established as a Virginia S-corporation in November 2003 and SBA-Certified as an 8(a) company. ISO 9001:2008 registered, BOSH is led by founder Robert Fitzgerald and a team of highly skilled and experienced professionals.

Physical Sciences Inc.

www.psicorp.com/

Physical Sciences Inc. provides contract research and development services in a wide diversity of technical areas to both government and commercial customers. Our interests span basic research to technology development, with an emphasis on applied research.

SRC

www.srcinc.com/

SRC's mission is to help keep America safe and strong by protecting its people, environment and way of life. We will do this by focusing on our customers' needs through the innovative application of science, technology and information to solve problems of national significance.

DDL OMNI Engineering LLC

http://www.ddlomni.com/

DDL OMNI Engineering LLC is an engineering and technical services company specializing in Alteration Design and Installation Services; Environmental Services; Materials and Structures Engineering; Program and Strategic Management; Sensor and Electronics Development; Software, Web and Systems Development; Technical Documentation; and Training and Simulation. With a rich history spanning nearly 50 years, each of our skilled professionals is committed to our customers' success.

Unmanned Systems

http://www.unmannedsystemsaustralia.com.au/

Unmanned Systems Australia Pty Ltd provide Consulting and Training Services in the area of unmanned aerial systems as well as unattended and remotely monitored ground sensors, target acquisition systems and surveillance devices.

UND Aviation Program:

The University of North Dakota (UND) is the first university to offer a degree in unmanned aircraft systems operations. At the John D. Odegard School of Aerospace Sciences – Center for Unmanned Aircraft Systems, the Department of Aviation offers six undergraduate majors in two-degree programs. Students can obtain: Bachelor of Business Administration Degrees, Bachelor of Science in Aeronautics Degrees, Aviation Minors, Masters of Science in Aviation, and Ph.D. in Aerospace Sciences. The Business degree is fully accredited and recognized by the American Assembly of Collegiate Schools of Business (AACSB), and the Commercial Aviation and Air Traffic Control majors are fully accredited and recognized by the Aviation Accreditation Board International (AABI).

These programs offer liberal arts as part of the core curriculum, combined with a professional aviation education with all-season flight training. UND offers a B.S. in Aeronautics with a major in UAS Operations for students whose career goals are aimed at the UAV industry. A Commercial Pilot Certificate and United States citizenship are required for some courses. Graduates are trained and prepared to work as pilots/operators and/or developmental team members of UAS.

UND Aerospace offers courses in tail wheel, aerobatic, floatplane, and turbine aircraft operations, as well as helicopter training, and has a fleet of over 120 aircrafts consisting of airplanes, helicopters, and UAS. UND students pursuing degree programs in aviation begin in a preliminary program and must earn 24 credits with at least a 2.50 GPA in all courses. After requirements have been completed, students are fully admitted into his or her program.

UAV Certifications:

The FAA (Federal Aviation Administration) has strict regulations over UAS: UAS are generally flown within line of sight of the operator, lower than 400 feet, and during daylight hours. Public entities must be authorized with a Certification of Authorization from the FAA to fly UAS, and the FAA prohibits civil aircrafts to deploy weapons or to be flown for commercial purposes.

FAA approval to fly UAS can be obtained with: Special Airworthiness Certificate – Experimental Category (SAC–EC) for civil aircraft, and Certificates of Waiver or Authorization (COA) for public aircraft. Public aircrafts are solely for the U.S. government, or owned and operated by a state government, the District of Columbia, or a United States territory or possession. Civil aircrafts can be flown with an experimental airworthiness certificate from the Aircraft Certification Service – Production and Airworthiness Division at the FAA headquarters.

With a COA, a pilot is certified as an operator for a defined airspace and specific amount of time. Each COA also includes special provisions unique to each operation. Most COAs must be in contact with an appropriate air traffic control facility and have the appropriate requirements for the UAV. According to the FAA, there are no means to obtain an authorization for commercial UAS operations in the NAS. In regards to commercial operations, all must be conducted in civil airspace and must meet minimum levels of safety. Public UA operators have the ability to self-certify their equipment and personnel, but the FAA certifies civil operators.

The industry released a Code of Conduct for UAS manufacturers and operators in order to safeguard the use of UAS:

http://www.auvsi.org/conduct

In addition, the International Association of Chiefs of Police released a set of guidelines for the use of UAS:

http://www.theiacp.org/portals/0/pdfs/IACP_UAGuidelines.pdf